

Research Project #3

Develop Common Denominators for Safety Measures

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Goals

- Develop or identify common denominators suitable for transportation safety measurement
- Should be usable within and across various transportation modes

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Scope

- Limited to evaluation of exposure measures suitable for transportation safety evaluations
- Includes crashes, incidents and injuries to occupants and/or workers

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Modes Considered

- Aviation
 - General aviation
 - Air carrier
- Highway
 - Passenger car
 - Trucks
 - Transit services
 - Bicycles
- Rail
 - Passenger and freight
 - Transit systems employing rail
- Maritime
 - Commercial
 - Recreational
- Pipeline

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General Approach

- Exposure measures currently used identified
- Limitations and gaps of current environment identified, by mode and by type of activity

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General Approach

- Recommendations developed to correct for limitations and gaps
- Recommendations for exposure measures suitable for intra- and inter-mode comparisons developed
- Approaches for implementing findings and recommendations developed

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General Recommendation 1

- General aviation activity survey should be expanded to collect information on:
 - Number of aircraft occupants
 - Trip length, miles
 - Amount of freight carried
 - Hours on duty for professional pilots

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General Recommendation 2

- A process needs to be developed to capture information from commercial marine operators that would include:
 - Trip length, miles
 - Trip length, time
 - Number of occupants including crew
 - Hours on duty for crewmembers

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General Recommendation 3

- Highway data collection systems (HPMS, VIUS, NHTS, etc.) should be reviewed to determine accuracy of estimates currently provided. Accurate estimates are needed for:
 - Trip length in distance and time
 - Number of vehicle occupants
 - Total number of trucks operated by commercial operators
 - Hours on duty for professional drivers

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General Recommendation 4

- An ongoing and systematic survey should be undertaken to collect information from recreation and boat operators on:
 - Total number of occupants per trip
 - Trip length in time and distance
 - Type and size of boat (sailboat, power, etc.)
 - Number of hours underway compared to time at anchor

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General Recommendation 5

- The National Household Transportation Survey (NHTS) should be conducted more frequently (every two years) to improve timeliness of information. It should also be modified to collect information on:
 - Recreational use of transportation
 - Trip length and distance where applicable
 - Number of occupants
 - Transportation mode used for recreation

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General Recommendation 6

- The U.S. Department of Transportation should work with State and local authorities to develop a central repository of vehicle operator demographic information derived from operator licenses and other sources. This information should be collected for operators of highway vehicles and transit system vehicles.